

## **REMARKS**

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

### ***Status of All of the Claims***

Below is the status of the claims in this application.

1. Claim(s) pending: 47-80.
2. Claim(s) canceled: 1-46.
3. Claim(s) added: None.
4. Claims withdrawn from consideration but not canceled: None.

### ***Claim Objections***

In item 2 of the Office Action, claim 64 was objected to as lacking a proper antecedent basis for “the removable device”. Claim 64 was indeed intended to properly depend from claim 63, and as such has been amended in order to correct the error and moot the objection.

Also, in many of the remaining system claims, the term “each” is replaced with a “plurality” or “the” to make clear that some plurality, but not necessarily requiring “each” [segment] or other element, to be consistent with the open claiming preamble used.

### ***Claims Rejections – 35 USC §101***

In the Detailed Action portion of the Office Action, claims 1-46 were “rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.” Applicants have mooted this rejection by cancelling those method claims. This is done while preserving the right to submit these and/or other claims later in prosecution of this or a continuation case.

### ***Claims Rejections – 35 USC §103***

#### ***Introduction***

In the Detailed Action portion of the Office Action, claims 1-80 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Swait* in view of *Qian*. At the outset, applicant

acknowledges the implicit conclusion by the Patent Examiner that the claimed inventions are novel, that is to say new.

Regarding the assertion of “obviousness”, applicant respectfully submits that the claimed inventions are a significant advance in this field and would not have been “obvious” at the time the invention was made. *Graham v. John Deere*, 383 U.S. 1; 148 USPQ 459 (1966).

Recently, the U.S. Supreme has further clarified the *Graham* analysis in view of the Federal Circuit’s teaching, suggestion, or motivation test in *KSR Int’l Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007). “When it first established the requirement of demonstrating a teaching, suggestion, or motivation to combine known elements in order to show that the combination is obvious, the Court of Customs and Patent Appeals captured a helpful insight. ... a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art” *KSR Int’l*, 82 USPQ2d 1385, 1396 (2007, citations omitted). Nor may hindsight be used.

In order to establish a *prima facie* case of obviousness, one of the other basic requirement is that each element claimed must be present in the prior art.

To be clear, applicants do not claim to have invented data enrichment between two data bases. Nor do they claim to have invented such data enrichment even using scanner panel data. Rather, the invention includes each of the features in combination as claimed. As detailed below, two claim terms worthy of note are, to preferably reduce “bias”, and have the data sources of a common “time”, discussed further below.

### ***The Swait article***

The *Swait* article, which may or may not be prior art, never-the-less has some interesting and valuable contributions. While some of those concepts optionally could also be combined

with the present invention, never-the-less they are directed to different things. The article focuses on its contribution that:

Following this suggested direction, the objective of the present research is to investigate the feasibility, advantages, and disadvantages of combining household scanner panel data and choice experiments (Louviere and Woodworth 1983, Louviere et al. 2000), which use carefully configured experimental designs to determine the effects of variables on choice behavior.

*Swait* at page 443 (underlining added). The article goes on to give the utility of its work, such as to allow analysis of “what-if” scenarios. This can, as the article states, have very practical and beneficial use. For example, its recites its use of a custom designed experimental choice mail survey (see page 448) in Chicago in October, 2000 to help, “easily manipulate certain market variables that would be impossible or prohibitively costly to do in real markets (e.g. availability of brands...)” *Id.* at 451. Thus, by conducting “what-ifs” in the panel (cheaper and easier), *Swait* applies data enrichment to the scanner panel data taken years earlier, namely from “September 1995 to November 1997”. *Id.* at 447.

It is important to appreciate one (of several) things that *Swait* does *not* solve, or even try to solve. *Swait* does nothing to try to correct or reduce bias.

Rather, *Swait* candidly acknowledges that the experimental choice data is “likely to be subject to upward bias”, *id.* at 443, and that, “sampling errors and biases present in experimental data may be different from those present in scanner panel data”, *id.* at 444. Yet, while acknowledging this fact, he does nothing to address it. Here, by contrast, most of the invention claim presented are for reducing bias.

Indeed, it does not appear that *Swait* is trying to “correct” anything. Rather, *Swait* is using data from a later (2000) custom designed survey and using data enrichment techniques to

apply (and infer) it to data years in the past. While useful (you cannot go into a time machine to sample data you wish that you had collected back in 1997) and cost efficient, this is not reducing bias.

### *The Qian article*

The *Qian* article is aptly titled, OPTIMALLY WEIGHTED MEANS IN STRATIFIED SAMPLING. It is very mathematical and is difficult to comprehend. This is perhaps relevant when considering whether, (even assuming this is relevant art), a person of “ordinary” skill in the art would read *Qian* and conclude that the present inventions would have been obvious. Nor does it appear to enable the present inventions. Much more work would be required.

Even so, the contribution of *Qian* is that the paper, “develops a minimum mean square error (MSE) estimator...”. *Qian* at 863. It is not directed to reducing bias as claimed here. In fact, it distinguishes itself from “the unbiased estimator...unlike the classical [mean square] estimator, our estimator is biased.” *Id.* (underlining added). The example given in *Qian*, page 865-866, is based on the hard dollar value of per capita income, \$14,420 in 1990. While it does sample a smaller population, it does not apparently sample one to correct bias in the other. Biases are systematic errors. In sales and marketing type data, for which the present invention is focused most preferably, often such bias is based on psychological or subconscious factors. *Qian* does not seek to reduce such bias. Indeed, *Qian* states, “Conclusions...These methods may be desirable when the reduction in MSE is appreciable and the increase in bias is relatively small.” (underlining added). Nor does it have the features of the dependent claims.

When comparing the cited references versus the claimed invention, Applicant respectfully submits that they would have been non-obvious at the time of the invention. As

discussed above, claims 47-65 require, among other things, the reduction of bias. The points made above are not otherwise repeated here. The same is true with respect to 75-80.

Moreover, as discussed above regarding Swait, the two data sets are for events taken in separate time periods. Here, to reduce bias or to increase the accuracy of the data, it is preferred that the two data sources are compared based on a common time dimension. This is recited in claims 70, 75 and 76-80. This provides a further independent basis for patentability.

Other than the improper use of hindsight, it would not have occurred that a person of ordinary skill in the art would have combined the references as now being done. Accordingly, Applicant respectfully submits that they are patentable.

Nor do the cited references teach many of the features of the dependent claims. For example, without limitation, the feature of dividing a first data source volume amount as set forth in claim 49 provides further patentability. Multiplying a second data source of volume amounts a factor for the corresponding attribute segment, such as in claim 50, is likewise patentable.

Selectively identifying what is relevant, in claim 51, is not disclosed. Nor is calculating factors for attribute segments that are significant (e.g., statistically significant) such as claim 52 are not disclosed. A blended factor in claim 55 features likewise novel and non-obvious. It does not appear to be in Swait, Qian or otherwise. As such, using a blended factor to reduce bias, such as in claim 57, is likewise further patentable. Calculating the blended factor by weighting accuracy, such as in claim 58, likewise is not present when the total combination of what is claimed is considered.

Likewise, the exclusion of shipment data in claim 68 and/or claim 69, in combination with the claims as a whole, is further patentable.

The foregoing is not limiting, these features found in the other dependent claims are likewise patentable for the same reasons.

### CONCLUSION

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the undersigned representative by telephone to schedule an interview to advance the prosecution of this case.

Respectfully submitted,

By



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